

**National Institute of Child Health
and Human Development**

**“From Cells to Selves”
Health Disparities: Bridging the Gap**

Key Areas for Health Disparities Research

- Infant/Maternal Mortality and Morbidity
- Reproductive Health
- HIV/AIDS prevention and treatment
- Early Antecedents of Disparities in Disease and Growth
- Early Antecedents of Child Well-Being and Adverse Behaviors
- School Readiness, Cognitive and Behavioral Development
- Restoring Function and Preventing Disability
- Training and Career Development
- Outreach to Communities and their Institutions

Infant Mortality and Morbidity

- Expand the D.C. Initiative with new interventions that address psychosocial and behavioral risk factors associated with preterm births and low birthweight among African American and Hispanic teens.
- Create community-based research infrastructure to support basic social, behavioral, and biomedical research and design multi-disciplinary interventions addressing poor outcomes from late pregnancy through early childhood.
- Expand community-based outreach campaigns with minority populations to reduce SIDS-related risks in the infant sleep environment.

Reproductive Health

- Support a new initiative to improve contraceptive services in minority communities and to address the barriers to effective use through socially, culturally, and age-appropriate strategies.
- Support a new phase of the D.C. Initiative, to develop an intervention program to delay sexual activity.

HIV/AIDS Prevention and Treatment

- Design, implement, and evaluate interventions based on the science of social/sexual networks to help prevent the sexual transmission of HIV.
- Strengthen partnerships with institutions based in minority communities to develop more effective, research-based, HIV intervention programs targeting high-risk sexual behavior.
- Support research to understand how the media differentially targets, represents, and exposes minority populations to messages involving high-risk behaviors that can place these populations at risk for HIV infection.

Early Antecedents of Disparities in Disease and Growth

- Support a prospective, multi-agency, longitudinal, cohort study to understand the early antecedents of disparities in hypertension, stroke, diabetes, and coronary artery disease, including biological, psychosocial, physical/environmental, and behavioral factors.
- Support research to assess factors that influence the calcium intake of different ethnic/racial groups, targeting children and teens, with particular reference to social, cultural, and ethnic influences on food preference.
- Identify how social and cultural factors intersect with food availability to influence the development of dietary habits in infancy through adolescence.
- Support research to understand the social, cultural and behavioral factors that influence the decisions of women of various racial/ethnic sub-populations to breastfeed their infants, and to continue breastfeeding throughout the first year of life.

Early Antecedents of Child Well-Being and Adverse Behaviors

- Extend the “Science and Ecology of Early Development” (SEED) program, which is examining the complex interactions of poverty with other factors that influence developmental outcomes and resilience in children and families.
- Expand studies of the antecedents, consequences, and meaning of parental involvement, program intervention, and other social and community factors, for child health, social, and cognitive outcomes.
- Collaborate with the CDC’s Healthy Passages Program, studying the developmental paths of health risk behaviors and adverse health outcomes in White, African American, and Hispanic youth.
- Support research on injury prevention, clarifying factors that place minority youth at greater risk and developing effective preventive interventions.
- Study the antecedents, etiology, and outcomes of violent behavior in youth, identifying different pathways among various racial and ethnic groups (with NIH Youth Violence Consortium).
- Support a collaborative effort to understand the impact of domestic violence during pregnancy, and children’s exposure to domestic and community violence.

School Readiness, Cognitive and Behavioral Development

- Identify whether linguistic barriers exist for non-English-speaking (“language minority”) children; design appropriate interventions to ensure school readiness for these children.
- Identify the unique developmental and linguistic challenges facing children of migrant workers
- Identify the biobehavioral, social, environmental, and community stressors leading to disparities in academic achievement and dropout rates among minority adolescents. Develop effective multidisciplinary interventions for reducing these disparities.

Restoring Function and Preventing Disability

- Identify social, cultural and community factors that may lead to differences in: 1) responses to disabilities and to rehabilitation interventions, 2) access and use of outpatient rehabilitation services and 3) risks in developing secondary conditions associated with disabilities.
- Acquire basic data and develop appropriate interventions to address barriers that impede minority families/individuals with disability from returning to work, reintegrating themselves into the community, and returning to school and to other educational opportunities.
- Supplement new clinical rehabilitation networks targeting pediatric trauma and traumatic brain injury, to understand how socioeconomic, cultural, and other external factors influence short-term and long-term rehabilitation outcomes.
- Develop a multisite collaborative program to design and evaluate interventions to promote stability within families of disabled children.

Training and Career Development

- Target additional slots for existing T32s to pursue health disparities research.
- Encourage existing T32 programs to form consortia with HBCU's, Hispanic Serving Institutions, tribal colleges, and schools in underserved areas to provide opportunities for students to train at the parent site.
- Provide coordinated national clinical research opportunities for minority investigators and researchers studying health disparities.
- Target new slots for existing career development programs.

NICHD Health Disparity Research Goals with Implications for Behavioral and Social Science Research

**This is a synthesis of research goals presented in the NICHD report
Health Disparities: Bridging the Gap.**

**The full report is available at <http://www.nichd.nih.gov/strategicplan/cells/>.
This document identifies goals related to behavioral and social science research.**

A. Infant/Maternal Mortality and Morbidity

Study the factors (including social and behavioral factors) leading to preterm births and low birthweight.

- Study social and behavioral factors in the etiology of preterm births and adverse neonatal outcomes associated with infectious/inflammatory disease processes, and conduct clinical trials to test treatment regimens, preventive and counseling strategies for preventing preterm births and adverse neonatal outcomes.
- Expand the D.C. Initiative with new interventions, targeting African American and Hispanic teens, that address psychosocial and behavioral risk factors to prevent preterm births and low birthweight.

Eliminate risk factors in the sleep environment that influence disparities in SIDS among racial and ethnic groups.

- Expand community-based outreach campaigns with minority populations to reduce risks in the infant sleep environment.

Address disparities in post-neonatal mortality/morbidity and early childhood conditions associated with poor birth outcomes.

- Create a research infrastructure, linked to community institutions and addressing the unique health needs of minority communities, that will support basic research and design multi-disciplinary interventions addressing poor outcomes from late pregnancy through early childhood, provide opportunities for community-based research training, and provide research-based information to the community. Research would integrate social and behavioral with biomedical approaches.
- Collaborate with the NIAAA to study the pathogenesis of poor fetal and infant outcomes among Native Americans and Alaskan Natives, including the high prevalence of drinking during pregnancy.

B. Reproductive Health

Reduce disparities in unwanted pregnancy by understanding and better addressing the barriers to appropriate contraceptive services.

- Support a new initiative to improve contraceptive services in minority communities and to address the barriers to effective use through socially, culturally, and age-appropriate strategies.
- Support a new phase of the D.C. Initiative, specifically the protocol to develop an intervention program to delay sexual activity, and extend the program to children in the preadolescent years, their parents, and young males.
- Support research on factors leading to infertility among minority men and women and the reasons for lower use of infertility services in minority populations, leading to improved strategies for infertility prevention and treatment.

Improve screening, prevention, and treatment of STDs.

- Expand investigator-initiated research on behaviors related to the prevention and treatment of STDs, emphasizing sociocultural perspectives and beliefs concerning STDs and related barriers to prevention.
- Support multidisciplinary collaborative research on barriers that prevent minority women from being appropriately diagnosed and treated for STDs; design effective interventions to help reduce preventable cases of congenital syphilis.

C. HIV/AIDS prevention and treatment

Expand and intensify HIV prevention efforts, targeting sexual transmission and related high-risk behaviors, in racial/ethnic minority populations.

- Design, implement, and evaluate interventions based on the science of social/sexual networks to help prevent the sexual transmission of HIV, especially in high-risk communities, including minorities and teens.
- Support research to link social and cultural understandings of gender, gender-related beliefs and expectations, and gender dynamics, to account for how these factors may influence HIV risk among different racial, ethnic, and socioeconomic groups.
- Support research to better understand the impact of demographic and social trends, and interpersonal and peer-related factors, on sexual behaviors related to HIV risk in different racial and ethnic populations.
- Strengthen partnerships with institutions based in minority communities to develop more effective, research-based, HIV intervention programs targeting high-risk sexual behavior.

- Support research to understand how the media differentially targets, represents, and exposes minority populations to messages involving high-risk behaviors that can place these populations at risk for HIV infection.

Lead research to develop more effective means of preventing and treating HIV in minority youth, using multi-disciplinary and developmentally appropriate methodologies and resources.

- Initiate an Adolescent Trials Network (ATN) to develop collaborative, primary prevention studies, as well as studies of effective and appropriate anti-retroviral therapy in adolescent, high-risk, primarily minority populations. This would include support of Project ACCESS (Adolescents Connected to Care, Evaluation, and Special Service), a social marketing program to encourage teens to access health care and, if appropriate, enrollment in clinical studies.

D. Early Antecedents of Disparities in Disease and Growth

Support research to understand the fetal antecedents of disparities in hypertension, stroke, diabetes, and coronary artery disease.

- Support a prospective, multi-agency, longitudinal, cohort study to understand the many factors (biological, psychosocial, physical/environmental, behavioral) contributing to differential health outcomes over the lifespan.

Better understand the interaction between the biology of nutrition and growth with social and cultural forces to help prevent the early onset of health disparities.

- Expand research addressing African American teenage women, to understand the genetic, physiologic, metabolic, and behavioral characteristics leading to their increased risk of obesity.
- Support research to assess factors that influence the calcium intake of different ethnic/racial groups, targeting children and teens, with particular reference to social, cultural, and ethnic influences on food preference.
- Identify how social and cultural factors intersect with food availability to influence the development of dietary habits in infancy through adolescence.

Eliminate the disparity in the percentage of African American women who choose to breastfeed their infants.

- Support research to understand the social, cultural and behavioral factors that influence the decisions of women of various racial/ethnic sub-populations to breastfeed their infants, and to continue breastfeeding throughout the first year of life.

E. Early Antecedents of Child Well-Being and Adverse Behaviors

Understand how the relationships between poverty, single parent families, and related factors affect childhood well-being for minority children. Encourage targeted interventions to strengthen family support systems and sense of connectedness.

- Extend the “Science and Ecology of Early Development” (SEED) program, which is examining the complex interactions of poverty with other factors that influence developmental outcomes and resilience in children and families.
- Encourage researchers to focus on the roles of parents in promoting healthy development, particularly among children of different racial/ethnic background and sociocultural settings. Examine how parenting interacts with other factors to influence children’s social, moral, emotional, and cognitive development in these settings.
- Expand support of the Early Head Start Fathers studies and the ECLS-B to determine the antecedents, consequences, and meaning of parental involvement, program intervention, and other social/community factors, for child outcomes including health, social, and cognitive.
- Collaborate with the CDC’s Healthy Futures Program, targeting White, African American, and Hispanic youth to determine the developmental path of health risk behaviors and adverse health outcomes.

Understand complex interactions between social, cultural, biological, and developmental processes, which contribute to intentional and unintentional injury, violence, and other adverse health outcomes for minority youth.

- Support research on injury prevention and emergency services for children affected by injuries, disability, illness, or violence. Clarify factors that place minority youth at greater risk, and develop effective preventive interventions.
- Support research to examine the social, parental and other antecedents of child neglect and abuse, while also determining the consequences of this behavior. Also identify the factors protecting infants and young children from neglect and abuse, with a focus on racial and ethnic differences.
- Examine, through multi-disciplinary studies, the developmental antecedents, causes, and health consequences of unintentional injuries in childhood and adolescence, addressing environmental, social, and cultural factors that lead to racial/ethnic disparities, especially among Native American and Hispanic populations.
- With the NIH Child Abuse and Neglect Working Group, develop a formal program to supplement research addressing child developmental processes in high-risk settings and abusive/violent environments.

- With the NIH Youth Violence Consortium, develop an initiative for research on the antecedents, etiology, and outcomes of violent behavior in youth, with the goal of identifying different pathways among various racial and ethnic groups.
- Support a collaborative effort to understand the immediate and long-term impact of domestic violence during pregnancy, and children's exposure to domestic and community violence. Address differential risk factors and impact across racial and ethnic groups.

F. School Readiness, Cognitive and Behavioral Development

Identify barriers to school readiness and academic success for minority and low-income children. Design appropriate developmental interventions to ensure optimal development and optimal school readiness.

- Identify whether linguistic barriers exist for non-English-speaking ("language minority") children. Address cognitive, developmental, and social/cultural factors to design appropriate interventions to ensure school readiness for these children.
- Determine factors that contribute to disparities in mathematics achievement and how best to address them. Address cognitive, developmental, as well social/cultural factors on a child's ability to learn mathematical concepts and information.
- Identify the unique developmental and linguistic challenges facing children of migrant workers
- Identify the interactions among biobehavioral, social, environmental, and community stressors leading to disparities in academic achievement and dropout rates among minority adolescents. Develop effective multidisciplinary interventions for reducing these disparities.

G. Restoring Function and Preventing Disability

Identify specific social, cultural and community factors that may lead to differences in: 1) responses to disabilities and to rehabilitation interventions, 2) access and use of outpatient rehabilitation services with varying impacts on health outcomes, and 3) risks in developing secondary conditions associated with disabilities.

Acquire basic data and develop appropriate interventions to reduce the burden of ethnic/racial minority individuals and families with a permanent disability. Address barriers that impede racial and ethnic minorities from returning to work, reintegrating themselves into the community, and returning to school and to other educational opportunities.

- Supplement newly established sites in the Regional Rehabilitation Network (which integrate basic science with clinical rehabilitation studies) to link with minority institutions to address targeted questions concerning minority populations.

- Develop innovative rehabilitation interventions targeting the needs of racial/ethnic minority families.
- Supplement new clinical rehabilitation networks targeting pediatric trauma and traumatic brain injury, to understand how socioeconomic, cultural, and other external factors influence short-term and long-term rehabilitation outcomes.

Promote stability in racial/ethnic families with disabled children by designing and implementing research-based interventions. Address the father's role in influencing health outcomes of disabled children and understanding various social/cultural factors that may increase the risk for adverse family outcomes.

- Develop a multi-site collaborative program to design and evaluate interventions to promote stability within families of disabled children.

H. Training and Career Development

Build on the strength of NICHD's existing Institutional Training Programs (T32s) in the demographic/behavioral, reproductive, maternal/child health, and rehabilitation sciences, which already target health disparity research issues. Expand these programs to better link to the minority communities that we serve.

- Target additional slots for existing T32s to pursue health disparities research.
- Encourage existing T32 programs to form consortia with HBCU's, Hispanic Serving Institutions, tribal colleges, and schools in underserved areas to provide opportunities for students to train at the parent site.

I. Outreach to Communities and their Institutions

Ensure the enrollment of a greater number of individuals from various racial and ethnic minority communities in clinical trials. Ensure that the Institute's intramural and extramural investigators understand community characteristics and needs, receive adequate training and guidance, and communicate information about the trials to appropriate health care providers and to the community.

- Support efforts to increase interactions with health care and patient representatives from the communities in which new clinical trials are planned to: 1) apprise the community of the nature and scope of the research, 2) build the community's trust in the research effort, and 3) ensure that the trial design adequately meets community needs and concerns. Apply appropriate social marketing and outreach techniques to enhance recruitment where necessary.
- Enhance training opportunities for intramural and extramural investigators in designing and conducting trials, and in outreach techniques, to better meet the needs and concerns of racial and ethnic populations.